State of California

PROCEDURES

Required for the Use of the

Election Systems and Software (ES&S)

Model 100 Precinct Level Ballot Tabulation System

These procedures have been adopted by the Secretary of State pursuant to Elections Code sections 19200 and 19205 and shall regulate and govern the use of the ES&S Model 100 Precinct Level Ballot Tabulation System at all elections governed by the California Elections Code.

These procedures shall be effective beginning **MM/DD/04** and shall be used in conjunction with all other statutory and regulatory requirements. Should there be a conflict with current or future provisions of the Elections Code, such provisions shall take precedence. Insofar as feasible, all procedures prescribed herein shall be carried out in full view of the public.

These procedures constitute a minimum standard of performance. They are not intended to preclude additional steps being taken by individual election officials to enhance the security and reliability of the electoral process.

Issued

MM/DD/04

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1. THE ES&S MODEL 100 PRECINCT LEVEL BALLOT TABULATION SYSTEM

1.1 INTRODUCTION

The ES&S Model 100 Precinct Level Ballot Tabulation System consists of:

1.1.1 One or more electronic ballot reading devices, hereinafter referred to as "ES&S 100" into which an authorized election deputy inserts a ballot marked with the voter's choices for candidates and choices for or against ballot measures to be voted on. Section 1.3 describes its operation more fully.

1.1.2 A marking device, issued by the election official.

1.1.3 If required, computer equipment and programs capable of reading, interpreting, and summarizing the information which has been read by the ES&S 100 device(s).

1.2 DEFINITIONS

1.2.1 Anti-Static Padded Bag

Such a bag is provided by the manufacturer of the ES&S 100 as packing material for the PCMCIA Memory Cards hereinafter referred to as "Memory Cards". These bags or bags of similar construction and materials shall be used to cover Memory Cards during transportation whenever possible.

1.2.2 Automatic Read Test

In testing it is often desirable to enter a single ballot repeatedly. To do so, without the delay of the ballot moving through a complete path from throat to exit slot, the Repetition Count feature may be invoked. Under this control, the ballot will be entered at the throat, counted, exited at the throat, and reprocessed without handling by the tester. The number of readings is under keypad code control. This feature is only available for testing, and not during election processing.

1.2.3 Ballot Ca Code **13200-13220**

The printed document which provides a voter the opportunity to vote for all appropriate candidates and ballot measures by using an appropriate marking device to indicate selections in available voting positions. The ballot shall have two detachable serialized stubs. All ballots are controlled by the Secretary of State, pursuant to California Administrative Regulations, and shall be printed with distinctive tints and designs as specified by the Secretary of State, and shall be produced and distributed in accordance with regulations adopted by the Secretary of State. All ballots must be printed by a state certified printer which includes counties that may wish to produce their own ballots, known as ballot on demand. The ballot with its one or two perforated stubs may be of various dimensions. After removal of all stubs, the ballot shall measure eight (8.5) inches in width. The length must be a minimum of 14 inches with a maximum length of 21 inches. With the ballot positioned in portrait orientation, such as a letter or this typed page would normally be held for reading, the various ballot sections are: a serialized binding stub at the top; followed by a serialized voter's stub, and the main processable ballot section. The binding stub is stitched or stapled together as a pad when the ballots are gathered, and is the part remaining affixed to the pad when the voter's ballot and attached voter stub have been removed for voting.

1.2.3 Ballot (continued)

All voting positions on the ballot are indicated by an unfilled oval adjacent to the names of candidates, available write-in spaces, and the for or against (Yes/No) ballot measure indications. Such unfilled ovals shall be uniform throughout the ballot, and shall be of such a design as to suggest the necessity of a mark to "fill in" the oval thus indicating a voting choice. The ballot may be scored horizontally for folding, but not vertically. The folding score shall not intersect a voting position. If any voting position on the ballot is used for more than one candidate or ballot measure at the same election, each such ballot shall have a ballot style identification code printed thereon. A party identification code shall be printed on each ballot at the gubernatorial statewide "open" primary election.

1.2.3.1. Write-In Voting Position on the ES&S 100 Ballot

For each office, immediately below the space on which the last candidate's name is printed, there shall be a space or spaces available for the voter to cast write-in votes when required. These spaces shall be equal in number to the number of persons to be elected to the office. An unfilled oval shall be printed adjacent to each write-in space.

1.2.3.2 Ballot Classifications

The various ballot classifications are as follows:

1.2.3.3.1 Blank Ballot

A blank ballot is one on which there are no voting position marks that can be read by the ES&S 100. It may be truly blank in all voting positions, or it may have marks in these positions which the ES&S 100 cannot read because they are of insufficient marking.

1.2.3.3.2 Damaged Ballot

A damaged ballot is one which has been torn, bent, or otherwise mutilated so that it cannot be processed through the ES&S 100. Damaged ballots at the precinct level are spoiled and a new ballot is reissued to the elector.

1.2.3.3.3 Demonstration Ballot

This ballot, used for demonstration purposes, displays a mock election. Offices are frequently fictitious; candidates are usually historical figures; and measures are obviously not serious. Such ballots may be used and re-used for demonstrations from voter to voter and from election to election such ballot shall not be produced and printed on state certified ballot stock at any time.

1.2.3.3.4 Error Ballot

This is a ballot whose header code does not match the header code expected by the ES&S 100's Memory Card for a particular precinct or ballot style.

1.2.3.3.5 Normal Ballot

This is a description usually applied to a ballot which has been voted and is not distinguished by any anomaly, such as overvoted offices, a damaged condition, blank, etc. "Normal" ballots are customarily directed to the right compartment of the ES&S 100's ballot box.

1.2.3.3.6 Provisional Voter Ballot

A ballot issued, pursuant to Elections Code section 20107, to a voter claiming to be properly registered to vote, and whose qualification or entitlement to vote cannot be immediately established upon examination of the index of registration for the precinct or upon examination of the records on file with the county election official. Such voters shall be provided a provisional ballot which shall not be tabulated until verification of eligibility has been confirmed. Said ballot votes shall only be added to races in which the said voter is entitled to vote.

1.2.3.3.7 Questioned Ballot

A ballot on which the voter's entitlement must be verified.

1.2.3.3.8 Spoiled Ballot

A ballot issued to a voter and returned by the voter for another ballot because of an inadvertent error made during the ballot marking process.

1.2.4 Ballot Layout

The ballot configuration unique to each precinct or precinct split which encompasses all candidates, including any rotation of candidate names, and ballot measures to be voted on at a specific election.

1.2.5 Ballot Statement

A comparison of the number of ballots received from the election official by each precinct board with the sum of all precinct voter voted ballots, returned absent voter voted ballots, provisional voter voted ballots, and all spoiled and unused ballots at an election.

1.2.6 Ballot Style

A unique combination of candidate offices and ballot measures to be voted on at an election. There may be more than one such combination in a given election because of offices or measures, which may be voted on by fewer than all the voters at that election. The rotation of candidate names may also create additional ballot styles, as can partisan contest specific ballots. The terms "ballot style" and "ballot type" are often used interchangeably.

1.2.7 Audible Tone

The ES&S 100 is equipped with a beeper to emit an audible signal when a ballot anomaly condition is encountered requiring voter or operator intervention, or to confirm a processing action. This signal complements a message displayed on the LED display.

1.2.8 CPU

This is a commonly used abbreviation that refers to the Central Processing Unit of a computer or computer system, as distinguished from other peripheral devices or components.

1.2.9 Timing Marks

These are vertically printed marks appearing along both vertical edges of an ES&S 100 ballot. Assurance of proper ballot printing registration is given when these marks appear in corresponding positions along each edge of the ballot. Timing marks should be checked upon receipt of ballots from the printer.

1.2.10 Destructible Seal

Any type of numbered device, such as a boxcar seal, used to close a container, room, or area and that requires damage to, or destruction of, the numbered device to gain access to the contents therein. Audit control logs must be maintained recording the sealing and/or unsealing process to including: seal number; date, time and nature of activity; and the person's name. A destructible seal is used to secure the cover of the Memory Card housing in the ES&S 100. It is secured in place prior to transporting the unit. It is broken and removed at the polling place following printing of the results tape, such printing taking place after the closing of the polls.

1.2.11 Device Report

This report lists the serial number of an ES&S 100 and of the Memory Card installed therein. At the polling place the report shall be compared against the ES&S 100 and its Memory Card housing. This report need not be a separate document, but may be included within another control document.

1.2.12 Multiple Precinct Processing

ES&S 100 firmware is capable of processing from two (2) to five (5) precincts simultaneously. When so employed, the ballots for each precinct shall have discrete identifying codes. The election shall be coded so that the log/results tape will show discrete vote totals and discrete statistics for each precinct. Combined statistics, such as total ballots processed, total ballots directed to bins, ballots striped and other counts will be printed as an aid to auditing. The discrete statistics printed for each precinct shall show, per precinct, total ballots cast and of what type.

1.2.13 ES&S 100 Ballot Box Compartments or Bins

In operation, the ES&S 100 is mounted over a three compartment ballot box. A processed ballot is directed, under program control, to one of two of these compartments, or bins. "Normal" ballots are usually sent to the right bin, while other classifications of voted ballots are usually diverted to the left bin. It is the option of the county to use the divert process within the ballot box function. The Front Auxiliary Bin is used for the temporary storage of unprocessed, voted absentee ballots turned in at the polls or provisional ballot secure storage. An additional storage example would be ballots voted during an ES&S 100 failure. The ES&S 100 is equipped with an integral backup battery unit that permits up to eight hours of continuous unit operation in the event of a power outage.

1.2.14 Election Official

As used here, this term shall apply to the County Clerk, the County Registrar of Voters, the City Clerk or any other person who has been properly and legally charged with the responsibility of conducting the election. These Procedures shall be liberally interpreted, so that when permitted by law, the election official may deputize others to perform designated functions.

1.2.15 Election Coding

This term applies to the election preparation function of providing specific election parameters to Memory Cards using special software. These parameters include, but are not limited to the definition of offices, candidates, voting positions, number of candidates to be elected, statistics to be accumulated, ballot path and striping controls, keypad utility and control codes which may be made available, plus any other election specific parameters.

1.2.16 Header Codes

Codes are printed in the upper front corners of a ballot, identifying it as being of a specific ballot style, political party, or other grouping. The header code may also designate the ballot as to precinct, if desired. When multiple precinct processing is implemented, header coding identifying each precinct separately is required. If the header coding on a ballot is not identical to that carried by the Memory Card, that ballot will not be accepted for processing and an error message indicating that condition will be printed and displayed.

1.2.17 Invalid Code Printing

This can occur when the printed codes on ballots for the identification of the precinct, ballot style, or party do not match the programmed instructions in the ES&S 100's Memory Card.

1.2.18 LCD Display

There is a four line, 40 character per line LCD display on the front panel of the ES&S 100. The LCD indicates that power is on and shows a count of the number of ballots that have been processed. This is also referred to as the "public counter". It displays the number of ballots processed through the ES&S 100 up to that point. Ballot anomaly messages are also displayed in clear text on the LCD.

1.2.19 Initialization

This is the final process of preparing an ES&S 100 for ballot processing. At the warehouse or final testing area, before transportation or movement of the unit to the precinct or counting location, all results and statistical counters are reset to zero and a confirming message is obtained. At the precinct or central counting place, when power is applied, a report reflecting and confirming zero counts will print automatically. Following this, the LCD will display the message, "OK TO READ BALLOTS".

1.2.20 Log/Results Tape

The ES&S 100 Printer uses a paper tape roll, similar to an adding machine tape, for printing election activity messages, reports and election results. During election preparation and testing the tape indicates or confirms actions taken, results generated, and that selected functions are operable. At the precinct, when the ES&S 100 is first supplied with power, the tape will print, showing Ballot Statistics (zero counts), Acceptable Security Codes, and Totals (zero Counts) for all candidates within all offices applicable to the precinct, or precincts. This printing becomes an election reconstruction audit trail checkpoint. The precinct workers must confirm zero counts, and by comparison against sample or official ballots, confirm that the ES&S 100 is counting all of the measures, offices and candidates expected on the particular ballot style for that precinct. Measures, candidates and offices shall print in the exact order as they appear on the ballot. The tape is detached and kept in the polling place location and can be viewed by members of the public as needed it may also be posted in plan view within the polling place location. Each polling place shall produce at least two copies of the tape this process shall be repeated at the closing of the polling place location with the in precinct results being printed in the same manner.

1.2.21 LCD Display and/or Printed Results Tape Messages

A certification message, followed by signature lines may be printed. The message attests that the statistics and results are true to the best of the Precinct Board's knowledge. The election official may choose to implement this function or not. He or she may also choose the wording of the message. Diagnostic messages can be printed on the ES&S 100's tape at the discretion of the

Election Official. All diagnostic messages are logged on the unit's Memory Card irrespective of whether the message is printed and/or LCD displayed.

1.2.22 Marking Device

The election official shall issue to each elector for use in marking the ballot either a #2 lead pencil or a device which will make a mark complying with carbon content ink specifications as published by the manufacturer of the ES&S 100. ES&S does not recommend that erasers be used or supplied to polling place locations.

1.2.23 Memory Card

A Memory Card is an intermediate storage medium (PCMCIA Card) which must be installed in an ES&S 100 in order to process ballots. A full explanation of the function of this device is presented in Section 1.3.4. A discrete number engraved into or affixed by non-removable label to each Memory Card to specifically identify a Memory Card.

1.2.24 Memory Card Reading (Download and Upload)

When the parameters of the election and other instructions are downloaded onto the Memory Card via appropriate software, such downloading is accomplished by an ES&S 100 cabled to the election preparation software resident Personal Computer (PC). The ES&S 100 also accomplishes the uploading of election results from the Memory Card to the ballot tabulation software resident PC. The County should apply appropriate security wherein such PC resides within the county's operation to prevent unauthorized access to its equipment.

1.2.25 Object Code

The version of a computer program in which the source code language has been converted or translated by a compiler or assembler into the binary-code machine language of the computer with which it is to be used. These machine instructions are unique to the particular computer processor being used and can be executed directly by the computer processor without further simplification.

1.2.26 Orientation Codes

Special marks are printed on the ballot to indicate its orientation as it is fed into the ES&S 100. This allows the voter to place his or her ballot in the ES&S 100's read path in any of its four orientations.

1.2.27 Override

Certain classifications of ballots may, under program control, be returned to the voter for correction and/or further action before processing. If permitted by law, and at the discretion of the Election Official, the voter may "override" the decision or action process by causing the ballot to be accepted as is. During processing, only the override function is available to the voter. All other ES&S 100 functions are masked by the "Conduct Election" mode of operation. Election Official should always refer to the California Election Code when making such decisions.

1.2.28 Overvote

The Overvote condition occurs when the voter marks more candidates than the number of candidates to be elected. In an office to which one candidate can be nominated or elected, a second vote creates an overvote condition. The result is that no vote for that office can be tallied since the voter's intent is unknown. In the case of ballot measures, a "Yes" vote and a "No" vote

for the same measure creates the overvote condition. When marked ballots come into question the Election Official shall defer to voter intent as describe in the California Election Code.

1.2.29 Reusable Test Deck

This term is used to designate a stack of ballots which are not election-specific. These Procedures specify that the Reusable Test Deck shall consist of ballots carrying a demonstration, famous name type election. This deck can be used for accuracy testing or voter out reach by the County.

1.2.30 Secrecy Sleeve

An envelope or folder of such design and dimensions as to hide from view the voted ballot while it is being carried by the voter from the voting booth to the stub removal station. If ballots are to be processed through the ES&S 100 in the polling place, the ballot remains in the secrecy sleeve after stub removal as the voter carries it to the ES&S 100. There the voter inserts the ballot into the throat of the ES&S 100, taking care that the secrecy sleeve is kept back from the ballot grasping devices at the throat. (If there is no likelihood that ballot secrecy would be compromised, it is suggested that the voter be encouraged to remove the ballot from the secrecy sleeve prior to insertion into the ES&S 100.) Please refer to California Election Code for use of a secrecy sleeve.

1.2.31 Semi-Official Canvass

The process of collecting, processing, and tallying ballots on election night. This may include reporting of results to the Secretary of State. The semi-official canvass may include some or all of the absent ballot vote totals. The semi-official canvass is contrasted with the official canvass which begins not later than the first Thursday following the election and, for statewide elections, must result in final certification 28 days following the election.

1.2.32 Source Code

The version of a computer program in which the programmer's original programming statements are expressed in a source language which must be compiled, or assembled, and linked into equivalent machine-executable object code, thereby resulting in an executable software program. Source code comprises two generic categories: Vote Tally Software and Election Preparation Software for Precinct-based Tally Systems that produce election-specific firmware.

1.2.33 Election Results Summary System

An Election Results Summary System is used for the accumulation of jurisdiction-wide results and statistics, and for the printing of reports. Election results summary systems consist of an election preparation and tabulation resident PC and the requisite number of ES&S 100 units to accomplish the uploading of precinct result totals.

1.2.34 Tests

1.2.34.1 Accuracy Tests

Accuracy tests verify that the vote tallying hardware is operating correctly. Accuracy testing consists of entering a known number of ballots with a predetermined number of voted response positions into an ES&S 100 device(s). The accuracy test group of ballots has predetermined totals for all contests on the ballot, with every candidate in a contest receiving a different number of votes than any other candidate in that contest. All ballot styles and/or types

are subjected to accuracy testing. Additionally, all equipment that is subjected to use should be tested during this process.

1.2.34.2 Logic Tests

Logic tests must be run both before and after processing official ballots for an election, and are generally confined either to the Election Results Summary System specified in item 1.2.32 or stand-alone, high speed optical scan ballot processing units. For a stand-alone, high speed ballot processing unit, the logic test group of ballots has predetermined totals for all contests on the ballot, with every candidate in a contest receiving a different number of votes than any other candidate in that contest. All ballot styles and/or ballot types are tested. For precinct based units such as the ES&S 100, logic testing encompasses the uploading of precinct(s) vote totals from a unit's Memory Card to the Elections Results Summary System. Logic Test output can be in the form of a precinct or jurisdiction wide, election results press release bulletin, signed by the Logic and Accuracy Board. Submission of the vote tally programs and election specific files tested must be made to the Secretary of State not less than seven days before the election. The Secretary of State shall certify compliance and accuracy. This process shall take place prior to each election in which reports are electronically reported to the Secretary of State office.

1.2.35. System Proofing

System proofing verifies that all materials, files, and programs for an election are correctly prepared. This proofing process occurs over a two week period sometime between 40 days prior to the election day and 14 days prior to election day. Logic and Accuracy Testing is included in system proofing. Any language translations must be provided by a court certified translation service.

1.2.36 Time Control Feature

This feature, when implemented, will cause a cautionary message to be printed on the Log/Results tape and displayed on the LCD message screen if an effort is made to open or close the polls before predetermined times of day. All entries on the Audit Log and printed reports are date/time stamped.

1.2.37 Vote Both Sides Notification

The instructional notations printed at the bottom of each side of a two-sided ballot, urging the voter to vote both the front and back sides of the ballot. Such notification is mandatory.

1.3 DESCRIPTION OF THE ES&S MODEL 100 IN PRECINCT BALLOT TABULATION SYSTEM

The ES&S 100 is an optically scanned, precinct based, electronic voting system which is comprised of election definition and ballot generation software, ballots, a vote counting device and its associated firmware and report generating software. A Summary System, providing for the accumulation and reporting of results and statistics jurisdiction-wide, can be incorporated.

1.3.1 Ballots and Marking Devices

The ES&S 100 uses a mark-sense ballot which may vary from one column to three columns across a ballot 8.5 inches in width, and from 14 to 21 inches in length. Each column of the ballot consists of one or more contests, each with one or more candidate selection positions. The ballot may be printed on one or on both sides. Adjacent to each candidate or issue selection

position is printed an unfilled oval. The voter uses a marker to fill in or darken the oval. Several types of marking devices are suitable for use with the ES&S 100. A carbon ink based felt-tip marking pen which produces a mark of adequate reflectivity is the preferred marking instrument in the polling place. The reflectivity specifications of such markers, as well as the manufacturers thereof, are available from ES&S. A Number 2 lead pencil can also be used. The issuance of suitable marking devices by precinct election officials is mandatory.

1.3.2 Precinct Based Ballot Tabulation Unit

The ES&S 100 precinct based ballot tabulation unit is intended for polling place use. It is a portable device which measures approximately 14.25 inches wide, 16.25 inches deep, and 5 inches high. Its exterior is constructed of high-impact plastic. The unit weighs 19 pounds, 7 ounces with the battery included. The ES&S 100 is secured into its companion three compartment ballot box. The ballot box comes in two variations one metal and one plastic that is collapsible and is equipped with wheels. In the operational mode, the ballot box is 35 inches high, 20.75 inches wide and 25.25 inches deep. In its nested or transportable mode, ballot box dimensions are 20 inches high, 21 inches wide and 25.5 inches deep.

The voter places a voted ballot into the ballot entry slot that is marked with an arrow. The presence of the ballot in the slot causes the drive motor to be energized, and the ballot is taken into the device for processing. After the ballot has passed through the read station and the voting marks on it have been interpreted, it is placed into the ballot box or it is diverted to one of two compartments in the ballot box as determined by the Jurisdiction using the device. The front face of the ES&S 100 contains a four line, 40 character per line LCD message display area. During polling place operation, the LCD continuously displays the number of ballots which have been processed since opening the polls. The Memory Card is secured within the ES&S 100 by a sealed security clip attached to the locked front face-plate on the unit. The short, 3 inch read path of the ES&S 100 virtually eliminates ballot jams. All voter/precinct worker communication is done via the LCD message area in full alphanumeric text.

1.3.3 Election Coding

Prior to use in any election, the ES&S 100 must be put in readiness to process ballots for that election via ES&S supplied election preparation and ballot tabulation application software which must be certified for use by the Secretary of State. This software describes the offices, measures and voting response positions on each precinct's ballots. It describes the number to be elected to each office, the results to be accumulated, the statistics to be accumulated, the reports and messages to be printed, the selection of ballot path and striping options and other parameters of a specific election. This software transfers or downloads these parameters, which are precinct or ballot style specific, to the ES&S 100 via a Memory Card.

1.3.4 The Memory Card

The Memory Card is a reusable PCMCIA intermediate storage device which contains the election specific information required to process and tabulate precinct level ballots for a given election. The Memory Card serves as a medium for the temporary short term storage of this data before it is read into the Summary System. Once this data is so uploaded, and subsequently certified during the Official Canvass process, the Memory Card may be cleared of totals and be made available for future elections. If required, the election can be reconstructed from original ballots and the ES&S 100 Memory Card produced Precinct Election Result Tapes.

1.3.5 The Ballot Box Diverting Process if selected by the County

There are two paths that can be taken by a ballot after it is processed by the ES&S 100. These paths are under program control. The first path diverts a ballot to the right ballot box bin, ordinarily used to store counted ballots which require no further processing. The second path diverts a ballot to the left ballot box bin, which is ordinarily used to store counted ballots which require further action, such as determining the validity of, and the counting of, write-in votes. The M-100 also has a feature in which the ballot will be returned, at the voter's request, if a ballot is over/under voted. Additionally, a front auxiliary ballot or emergency voting compartment is available for the temporary storage of voted but uncounted ballots. The front auxiliary or emergency balloting compartment can be used during periods when the ES&S 100 is not functioning. While the permutations of ballot direction options are numerous, it is not the intention of these procedures to document all the possible combinations of these options and then to promulgate regulations governing their individual exercise. Rather, the results of the various ballot box diverting options are described in Table 2. As used in Table 2 or elsewhere in this document, the term "Normal" refers to ballots which are not damaged, have no write-in votes, no overvotes and are not blank. The term "Blank" refers to ballots which are either without any marks in voting positions or which carry marks that cannot be read because the ink in the marking instrument did not meet reflectivity specifications. The term "Damaged" refers to ballots which cannot be read because of tears or mutilation. The term "Write-In" refers to ballots which carry write-in votes for one or more offices. A ballot is not characterized as a "write-in" ballot unless the oval adjacent to the write-in space is properly darkened. "Overvoted" refers to a ballot wherein the voter has selected more candidates (including write-ins) than are to be elected for that office. Selecting both the "yes" and "no" responses to a ballot measure also creates an overvote.

The term "override" refers to the situation where an uncounted ballot is returned to the voter for corrective action and resubmission to the ES&S 100, but in this instance rather than correct the ballot anomaly condition, the voter opts instead to have the ballot processed as is. When such a ballot is encountered, it is not fully discharged from the throat of the ES&S 100, and remains hidden from view until corrective action is taken. The option to "override" the return action is exercised by the precinct official depressing the override "YES" button beneath the LCD message display area. When this is done, ballot movement is continued; the ballot is processed and diverted into the appropriate ballot box bin. The override option is not permitted with respect to damaged ballots or ballots that belong in another precinct. The intent of the ballot path diverting options displayed in Table 2 is to treat all voters in a uniform manner while conforming to the requirements of the Elections Code. Should an election official desire a change in these regulations, such may be granted by the Secretary of State following a review of the official's written request.

TABLE 2
BALLOT BOX DIVERTER OPTIONS

BALLOT CONDITION	BALLOT BOX DIVERTER OPTION
NORMAL	RIGHT BIN
BLANK	LEFT BIN; RETURN TO VOTER FOR CORRECTION/REPROCESSING; or OVERRIDE, THEN TO EITHER RIGHT OR LEFT BIN
DAMAGED BALLOTS	RETURN TO VOTER MANDATORY SPOILED BALLOT PROCEDURE
WRITE-IN BALLOTS	RIGHT BIN OR LEFT BIN ELECTION OFFICIAL DISCRETION
OVERVOTED BALLOTS	LEFT BIN; RETURN TO VOTER FOR CORRECTION/REPROCESSING; or OVERRIDE, THEN TO EITHER RIGHT OR LEFT BIN
ERROR BALLOTS	RETURN TO VOTER MANDATORY SPOILED BALLOT PROCEDURE

1.4 SUMMARY SYSTEM

While one or more ES&S 100's is sufficient for processing ballots, it is preferable to accumulate summary data and print reports through the use of a Summary System. Such a system consists of a Memory Card Reader (an ES&S 100 cabled to a personal computer), a personal computer, a printer or printers, a floppy disk drive and/or tape drive for periodic backups, and the requisite application software to effect the summary process. Inputs to this system are precinct vote totals contained on an ES&S 100 Memory Card which has previously processed the ballots for individual precinct(s). This election data is uploaded into the Summary System via the ES&S 100 acting in its Memory Card Reader mode. When used in an election, the Summary System is considered an integral part of the overall system, and is subject to the diagnostic testing, system proofing, logic and accuracy testing described herein.

PRE-ELECTION DIAGNOSTICS, TESTING AND PREPARATION REQUIREMENTS

2. TESTING PROCEDURES

Functions are outlined in these procedures in five stages or components: Diagnostic Tests, System Proofing, Accuracy Testing, Logic Testing and Final Preparation. ES&S 100 testing as set forth in this section shall include every ES&S 100 to be used. Where Memory Card testing is indicated, such testing shall include every Memory Card. It is not required however, that each ES&S 100 be tested with every Memory Card, rather only the Memory Card that will be used in that unit be subjected to a full L&A test. The test procedures described herein constitute the recommended MINIMUM testing and do not preclude additional testing performed at the option of the election official. In addition to the following test procedures, counties provide election night results on-line to the Secretary of State via the SOSWAN. Testing results must also be included in the upload to the Secretary of State. All tests will be conducted using test materials specified herein in such a manner as to meet these guidelines. All tests shall result in reporting

that matches predetermined results. Reports and test materials must be retained as specified in Section 2.8. All L&A testing should be performed in plan view of the public and proper notice should be given to allow interested parties to attend.

2.1 ES&S 100 DIAGNOSTIC TESTS

Prior to use, diagnostic tests shall be performed on every ES&S 100 to be used in the election. The following diagnostic tests shall be performed within 30-50 days prior to the election. The manufacturer of the ES&S 100 has published detailed, specific instructions for the performance of these tests which include instructions for, corrections to, and recovery from, any encountered hardware malfunctions. If malfunctions are encountered, such corrections and recovery procedures shall be implemented. ES&S 100 Operations Manuals are on file with the Office of the Secretary of State and are incorporated herein by reference. The ES&S 100 self-diagnostic package exercises the following unit components.

2.1.1 Test that the processor is capable of generating a signal to drive the beeper. The beeper generates an audible signal during ballot processing indicating the need for voter attention or action, or the confirmation of an action.

2.1.2 Test that the motor can be controlled by the CPU.

2.1.4 Test that the read head illumination lamps are functioning.

2.1.5 Test that all path sensors are clear and functional. A path sensor detects the presence of a ballot at various stations along its transport path.

2.1.6 Test that the LCD message display area is functional.

2.1.7 Test that the printer is functioning properly. Test that the printer ribbon is installed correctly and is properly inked.

2.1.8 Test that ballots are diverted as selected for their condition. (Refer to Table 2 for further explanation.)

2.1.9 Test that time and date are properly set, adjust as required.

2.1.10 Test that the Automatic Read Test feature can be invoked.

2.2 SUMMARY SYSTEM DIAGNOSTIC TESTS

Prior to use, diagnostic tests shall be performed on the Summary System. These tests shall be performed within 30-50 days prior to the election. If malfunctions are encountered, corrections shall be made and recovery procedures implemented. All counties should review California Election Code to ensure compliance is maintained at all times.

2.2.1 Check all cabling and connections for each hardware component to be used.

2.2.2 Implement such diagnostic tests as are available from the manufacturer(s) of the Summary System computer and peripherals.

2.2.3 Insert a Memory Card into the ES&S 100 acting in its Memory Card Reader mode in order to verify that an upload can be accomplished. This need not be an election specific Memory Card, but shall contain known results from a previous election, demonstration or test. Test that the Memory Card can be easily seated, a report can be printed and then repeat the procedure several more times.

2.2.4 Cause a Cumulative report to be printed, and check that the report accurately reflects the accumulation of data from the Memory Cards. Insure that the printer is properly functioning.

2.2.5 Cause the print files to be written to a disk and print two precinct reports and a cumulative report from the disk. Check the reports for accuracy and agreement.

2.3 BALLOT SPECIFICATIONS DIAGNOSTIC TESTING

Upon receipt of official ballots from the certified printer, the election official shall refer to the ES&S 100 Ballot Inspection Procedure that is available from the Secretary of State. This procedure is incorporated herein by reference. The election official shall inspect the ballots according to the procedure, insuring that the following minimum criteria have been adhered to during ballot production.

1. Ballot Format: with respect to number of columns, front and back printing, the inclusion of all ballot styles, precinct identifications if expected, and within each ballot style the listing, in proper order, of offices, measures, candidates and response positions.
2. Ballot Paper Stock: use an appropriate measuring device, or accept the printer's written declaration.
3. Ballot Width Accuracy: measure according to specifications.
4. Printing Registration Relative To Edges Of Ballot: insure that cut marks appear consistently along each edge.
5. Check ink density reflectivity for readable marks.
6. Check For Voids In Readable Areas: there shall be no extraneous printing such as dots, splashes, etc. in the empty area inside the oval, nor in the header coding area.
7. Check the readable oval mark size.
8. Check the ink offset
9. Check for ink bleed through and smears
10.
11.

2.4 SYSTEM PROOFING

2.4.1 System proofing is the mandatory preliminary, in-house testing of all phases of election preparations except for the Logic and Accuracy (L&A) tests of the computer hardware and software used to tally and summarize votes. System proofing shall include, but not be limited to, verification of the correctness of the following:

1. Assignment of jurisdictions participating in the election to ballot styles;
2. Linkage of precincts in which the election will be held to ballot style;
3. Ballot content for each ballot style to include: offices, district designations, candidate assignment and rotation, and ballot measures, all in the proper sequence;

4. Printing of official ballots, including instructions, candidates' names, political and/or occupational designations, number to be elected, candidate rotation (where applicable), ballot measures, voting positions and all column and office headings and designations;
5. Formatting of ballots into sample ballot pamphlets for each ballot style; header code printing, precinct identification (if used), start and stop lines, fold scoring, numbering, padding and verifying ballot dimensions by suitable means;
6. Election night summary report format;
7. ES&S 100 firmware's recognition of and response to precinct header codes, and ballots that are damaged, or improperly marked;
8. ES&S 100 firmware's ability to accept ballots with correctly printed header codes, and to reject ballots with incorrectly printed header codes;
9. All phases of preparation and assembly of ES&S 100 devices as described variously herein;
10. Voter registration data for jurisdictions participating in the election; and
11. Testing of 100% of the Memory Cards to be used in the election with a Memory Card Testing Log to include: Memory Card serial number; precinct number; date tested; results of test (GOOD, NO GOOD); and printed name of test personnel.

2.4.2 Exception Processing

Exception processing is part of system proofing and includes a test to determine whether the system properly responds to error or anomaly conditions. At least ten days prior to each election a ballot deck shall be prepared which will cause the gamut of non-destructive errors or anomalies for the ES&S 100 device, its firmware, and the edit or counting programs. The ES&S 100 is tolerant of ballots introduced in orientations which could be considered anomalous, such as upside down or reversed. This tolerance should be tested by introducing test ballots in these orientations. The exception processing test should contain, but is not limited to, the following types of conditions, if they apply to the system: torn ballots; and ballots introduced in any of their four orientations. Exception testing is also required to assure that the error condition of extraneous clock marks is detected.

2.4.3 "Error" Test Ballots

Ballots from a precinct or ballot style other than that expected by the Memory Card will be processed against the Memory Card. These tests for "error" test ballots will comply with the Ballot Box Diverter Options described in Table 2 or rejected ballot. Additional errors should be tested, depending on capabilities of the edit or counting program. Exception processing for the summary system's, ballot tally program(s) consists of stops, restarts and recoveries from interruptions in operation.

2.5 PRECONDITIONS FOR THE PERFORMANCE OF LOGIC AND ACCURACY TESTS

2.5.1 Prior to Logic and Accuracy tests, the following must be assured: diagnostic tests on all equipment shall have been performed to include verification of firmware being used; ballot test decks shall have been prepared as specified herein; all Memory Cards to be used for Logic testing shall have been coded with the current election; all Memory Cards to be used for Accuracy testing shall have been coded with the "Famous Names" election, or with a similar fictitious election that will provide compliance with Section 2.6 herein; all Memory Cards shall be initialized, and an "OK TO READ BALLOTS" message displayed on the LCD prior to processing test ballots.

Documentation must be prepared to show the known and expected voting and statistical results, said documentation to be compared against that produced as a result of the tests.

2.6 ACCURACY TESTING

Accuracy testing consists of those processes and procedures necessary to ensure that the hardware to be used in the election is working properly, both as individual units and as a combined system. Emphasis is placed on verifying that ES&S 100's can read every permissible mark on the ballot, and that individual components as well as any interface between them function as required. These tests shall be run BEFORE Logic Testing in order to assist in isolating problems. Accuracy tests are an integral part of equipment maintenance, and may be run as often as necessary before each election to ensure proper functioning of the hardware to be used in the tallying process. Such testing reports shall be maintained in accordance with election retention period requirements.

2.6.1 Performance of Accuracy Tests

Accuracy tests shall be performed prior to Logic and Accuracy Certification (including amendments and re-certification, if necessary) to the Secretary of State and again within 72 hours prior to processing ballots on election day. The accuracy tests may be run more frequently and shall be run after equipment has had maintenance work. Any failure of the equipment to perform as expected shall be corrected before using that equipment for election processing, and any ballots tallied on equipment which failed shall be recounted. In the event an ES&S 100 fails after official ballot processing has begun, accuracy tests must be successfully run on the (failed) component after it has been repaired, replaced, or adjusted, provided the component is to be returned to service. Required accuracy retesting shall be conducted in a manner deemed sufficient by the responsible election official. Diagnostic tests of hardware on election night are permitted. A loss of commercial power is not to be considered as a failure for purposes of this paragraph, since the ES&S 100's backup battery unit insures uninterrupted operation for eight hours.

2.6.2 Preparation of Accuracy Tests

The responsible election official shall cause the accuracy ballot test deck to be prepared and tested. The county may choose to use the automated ballot test deck preparation feature provided within Unity but the county must ensure the ballot test deck used, fully tests the accuracy of the unit. Predetermined results of the accuracy test must be available for inspection and sign off by the Logic and Accuracy Board.

2.6.3 Reusable Accuracy Test Deck

A reusable test deck consisting of pre-printed ballots conforming to a "Famous Names" election is used to test the accuracy of each ES&S 100 device on an annual basis unless of course, the units are used more than once within a twelve month period. In that instance, a ballot test deck comprised of actual test ballots for that specific election may be used. An annual, reusable test deck consists of ballots of different colored paper stocks with pre-printed ballot information as well as pre-printed vote marks. The ballots are printed on both sides with a demonstration election. The pre-printed vote marks are intentionally printed thin to represent the minimum specified acceptable oval darkening. Reusable test deck predetermined vote totals are made available with the test deck. The ballot test decks described above for performance of the annual and pre-election Accuracy tests may be substituted with other test decks, provided that they meet the specifications for test decks set forth herein and provided that prior approval has been granted by the Secretary of State in compliance with California Election Code.

2.7 LOGIC TESTING

Logic testing consists of those processes and procedures necessary to ensure that the vote tally programs and hardware correctly interpret, summarize and report voters' marks for a specific election. This is normally a series of tests utilizing test ballots which are made from actual printed ballots, and the accumulation of results from individual ES&S 100's by transferring results from the Memory Cards via an ES&S 100 functioning in Memory Card Reader mode to the Summary System. Successful testing will demonstrate that each candidate and ballot measure receives the proper predetermined number of votes, and that the system reports the proper number of over and under votes. This testing will also confirm that the system accepts only the proper ballot styles and rejects improper ones, and that the system is capable of counting the maximum number of ballots possible for a precinct. Logic tests will be conducted using test materials prepared in such a manner as to meet these guidelines. All tests shall result in reporting that matches predetermined results. All reports and test materials must be retained as stipulated in Section 2.8 and in accordance with State and Federal Law.

2.7.1 Performance of Logic Test(s)

1. Pre-Election Tests: An election specific Logic Test shall be performed on 100% of the Memory Cards to be used. This logic Test may begin within 30-50 days of the election and should be of sufficient duration to assure its adequacy. As each Memory Card is successfully tested it should be certified, identified and placed in security until needed.
2. The Summary System Logic and Accuracy Test shall employ one Memory Card of each ballot style.
3. Election Night Testing of upload and report production procedures shall be tested.
4. Summary System Logic Test shall be performed prior to and following election night tabulation, the latter test to occur after the Official Canvass period is concluded.
5. Post Election Testing: Following the Official Canvass, conduct a Logic and Accuracy Test for the Summary System. During the Canvass period all of the ES&S 100s' Precinct Results Tapes should be compared against the summary system generated precinct reports for agreement. Discrepancies shall be resolved by referring to the actual ballots for that precinct.
6. The predetermined results for balancing of election processing must be available for inspection and sign off by the Logic and Accuracy Board described in Section 8.4. The official Logic test must be completed, certified, and received by the Secretary of State seven days before each statewide election. It must accompany official copies of the ballot tally programs and files.
7. All ballot tally program(s) and hardware must remain operative from the time of the pre-ballot processing logic test, through the processing of all voted ballots, and finally, the post-ballot processing logic test.
8. Verification of the ES&S 100 Memory Card totals is accomplished as part and portion of the 1% random manual recount of cast ballots for a specific election.

2.7.2 Preparation of Logic Test Materials

The responsible election official shall cause the following logic test materials to be prepared and tested:

2.7.2.1 All ballot styles

A logic ballot test deck and Memory Cards will be prepared for all ballot styles to be used in the election. This logic test deck is composed of regular official ballots, and shall be marked "TEST" Within 30-50 days of the election, a 100% Memory Card Logic Test will occur. Logic Tests for the Summary System shall be for a minimum of one Memory Card per ballot style.

2.7.2.2 Logic Test Data

Two identical sets of test ballots shall be created for each ballot style used in the election. For purposes of testing, the election official may use either the primary or back-up logic test deck, but the backup logic test deck must be subject to the same security provisions as is the primary logic test deck. The logic test ballots shall be distinctively marked "TEST", and shall include:

2.7.2.2.1 Voted Test Ballots

A group of test ballots shall be voted. Varying vote totals should be allocated to adjacent candidates, and the number of "yes" votes on any ballot measure shall be different from the number of "no" votes. In the case of offices for which the voter is allowed to vote for more than one candidate, at least one ballot of the group shall be voted with the maximum allowed number of choices. For purposes of this test, write-in positions shall be treated as declared candidates. No office or ballot measure shall be voted in more positions (overvoted) than are allowed for the office or measure.

As an option for the election official, an individual ballot may be marked with a repetition count. This indicates the number of times that ballot is to be inserted and re-read in order that each candidate receives a predetermined number of votes. This vote total will be different from the vote total received by any other candidate for the same office. The ballots so prepared will be repetitively entered into the ES&S 100 the number of times required by the repetition count.

2.7.2.2.2 Overvoted Test Ballots

One test ballot shall be an overvoted test ballot, on which every contested office and ballot measure has received more votes than is allowed for that contest. Tests for overvoted test ballots will comply with the Ballot Box Diverter Options if adopted by the election official.

2.7.2.2.3 Blank Test Ballots

One blank test ballot shall be created. It will not contain any marks other than those needed for precinct or ballot style identification. This test should result in undervotes being cast for each contest in every occurrence in the test. Tests for blank test ballots will comply with the Ballot Box Diverter Options adopted by the election official.

2.7.2.2.4 Recall Measure and Candidates Contest Test Ballots

Recall elections, conducted in accordance with California state recall rules and laws and which include two official candidates, shall consist of a series of ballots that provides votes for each candidate listed on the ballot. When the recall election has more than two candidates, additional test ballots shall be marked for each additional candidate with a "Yes" vote and a "No" vote for the candidate, on each ballot. The third candidate should get 4 ballots; the

fourth should get 5 ballots, etc. When there is a recall and only one official candidate, test ballot card sets, numbered 1, 2, 3, 4, 9, 12, and 14 only shall be prepared.

2.7.3 Certification of Logic Test

Logic test requirements apply to all elections; however, submission of the seven day certification of logic testing and copy of the vote tabulation software must be provided to the Secretary of State. This seven day certification is required only prior to statewide elections and elections to fill vacancies in the State Legislature or Congress.

2.8 RETENTION OF TEST MATERIALS AND RESULTS

The successful logic and accuracy tests, conducted at the time of certification (or re-certification, if necessary) shall be submitted to the Secretary of State. Storage logs or records, if any, and balancing reports, if any, shall be retained as long as the ballots are kept for the election. The official logic test ballot cards used for balancing prior to, and upon completion of, the processing of official ballots shall also be kept for as long as the ballots. Back-up decks and other test decks may be destroyed or used to train operators for other elections. Memory Card totals may be zeroed. (See Item 3.7.5.8.7)

2.9 LOGIC AND ACCURACY BOARD

The election official shall establish a Logic and Accuracy Board pursuant to Section 8.4 to complete certification of testing. Not later than seven days before each statewide election, the Secretary of State must receive a copy of the Logic and Accuracy Board's certification. For local and district elections, the Logic and Accuracy Board members shall submit their copy of the Logic and Accuracy Board's certification to the local election official conducting the election.

2.10 BALLOT TALLY PROGRAMS

The election official shall send ballot tally programs to the Secretary of State pursuant to Section 8.5. The ballot tally program must be received by the Secretary of State no later than seven days before each statewide election. All software and hardware shall be certified by the SOS and no changes shall be made to any part of the system or operation without written approval from the Secretary of State prior to any such modification.

2.11 ELECTION OBSERVER PANEL

The election official shall establish an Election Observer Panel pursuant to Section 8.3.

2.12 HARDWARE MAINTENANCE

Ballot counting equipment must be maintained in a satisfactory manner in accordance with vendor specifications, where available. Individual component testing, and maintenance if necessary, shall be performed by qualified personnel within 50 days before each election. Maintenance, as required, should also be performed on all components of the Summary System. When installing any vote tabulation equipment or providing any type of maintenance the jurisdiction shall always apply adequate security to ensure the integrity of the process is maintained.

2.13 PREPARATION OF ES&S 100S FOR PRECINCT USE

2.13.1 Prior to transporting ES&S 100s to polling places, the election official shall insert each Memory Card (programmed for the election, and carrying appropriate precinct(s) and/or ballot style identification) into an ES&S 100. Complete the initialization procedures, beginning with the predetermined access code and thereafter, effect initialization. The log/results tape will print messages that initialization is complete, a message displaying precinct or ballot style identification followed by a display of statistical data and vote totals set to zero. The final message is "OK TO OPEN POLLS." If a Memory Card cannot be initialized, it shall not be used. If possible, initialization should be witnessed by the Logic and Accuracy Board or Election Observer Panel. A log will be maintained reflecting the Memory Card identification number and indicating precinct(s) or ballot style, date tested, results of test and signature of the tester. The log will be provided to the Logic and Accuracy Board.

2.13.3 Final Preparation of ES&S 100s For Precinct Use

Each ES&S 100 shall be equipped with the Memory Card for the precinct(s) where it is to be used. It shall be properly identified and sealed within the Memory Card compartment. The front protective Memory Card panel on the ES&S 100 shall be secured. Keys shall be labeled or otherwise identified, and placed in the custody of the election official for subsequent delivery to the appropriate precinct worker.

3. ELECTION PROCEDURES (Precinct Tabulation Via ES&S 100 With A Centrally Located Summary Count System)

Many of the procedures presented herein are supported by illustrations when presented as instruction to Election Boards.

3.1 INSPECTION AND DELIVERY OF PRECINCT SUPPLIES.

Instruct the appropriate precinct worker(s) to make the following checks of their election supply items prior to Election Day.

1. Check all pads of ballots to ensure that ballot style, serial numbers, and precinct numbers (if used) are printed on the ballots correctly.
2. Report any problems to the election official responsible for the election.
3. Supplies necessary to conduct elections at polling places shall be delivered as follows: ballots shall be in the quantity and manner required by Elections Code and demonstrator ballots marked for demonstration use only will also be included.
4. In elections that contain partisan offices, ballots may, as directed by the Secretary of State, be appropriately tinted to reflect which partisan office appears on a specific ballot.
5. Demonstration placards, signage and vote here indicators.
6. General purpose optical scan voting system precinct supplies to include ballot secrecy sleeves, ballot marking devices, two sample ballots of each ballot style and in each language required to be voted on in the precinct, and seals as well as any other supplies and forms deemed necessary.
7. A Certificate of Packaging and Sealing, in duplicate, together with a self-addressed stamped business reply envelope, addressed to the responsible election official.
8. The election official shall check that one ES&S 100 with Memory Card nested in its three compartment ballot box has been delivered to the polling place. If multiple precinct

processing will occur at the polling place, the device shall be located so that it is equally accessible to the voters and precinct officers of each precinct. Keys to the unit and the ballot box will be included in the precinct supply kits and marked as such.

9. Anti-static envelopes, appropriate containers and seals to facilitate safe and secure transportation of Memory Cards and election results tapes shall be supplied.

3.2 PROVISIONAL BALLOTS

Provisional ballots are the same as the regular precinct ballots. They are issued to those voters who claim to be registered but whose right to vote at that precinct cannot be immediately established. Voted provisional ballots are placed in special color coded envelopes and returned to the election official with other precinct supplies upon the close of polls. Procedures for processing provisional voter ballots at the precinct shall be in accordance with the stipulations of the Elections Code.

3.3 POLLING PLACE PROCEDURES

If multiple precinct processing within a single polling place is to be implemented, the functions hereinafter described shall be performed by the board workers of each precinct acting jointly insofar as is practical. Where forms are to be completed, the election official shall provide them in such a format and so written as to facilitate notations by each precinct staff. Surrendered and delivered absentee ballots, spoiled ballots and provisional ballots shall be maintained separately by precinct.

3.3.1 Before the polls are open, the precinct workers will perform the following tasks.

1. Complete Oath of Office and Declaration of Intention forms pursuant to Elections Code section 12321.
2. Assemble voting booths and in each booth display a copy of the required materials.
3. Insure that a pad of demonstration ballots, markers and suitable demonstration materials are available at the point of ballot issue.
4. Before the polls are open, the precinct board shall verify that the serial number on the ES&S 100 is the same number that is listed on the Voting Device Report.
5. Check that the Memory Card plate is secure.
6. Verify that no ballots remain in any of the ballot box bins from testing or previous elections.
7. Verify that the ballot slot cover on the auxiliary bin is closed and the bin is locked.
8. Close and lock all ballot box doors.
9. Insure that the ES&S 100 is nested into the ballot box and that the power cord is properly threaded through the rear of the unit.
10. When the power cord is plugged into a 120V AC outlet and the unit is keyed on, the ES&S 100 powers on and automatically prints a Zero Totals Tape to indicate that no ballots have been cast and that no candidate has any votes. The Zero Tape is the final initialization report that shows all of the offices and all of the candidates in the election for all precinct(s). All vote totals for all candidates must be zero. The public counter will display zero ballots cast. If the Zero Tape does not automatically print when the voting device is plugged in and turned on, a different electrical outlet should be tried if available. If the Zero Tape still does not print, this must be reported to the election official. Voting may

commence, but ballots are to be deposited in the front auxiliary bin until corrective action is taken. Such action must be logged.

11. Verify that all candidate names and propositions displayed on the Zero Results Tape are the same order as they appear on the official ballot. The Zero Totals Tape is signed by two board members; it can be rolled up and placed in a secure place or posted in the polling place for public display. This process is repeated at the closing of the polls. This tape becomes a permanent record of the election as it was conducted at the precinct.
12. Observe the poll opening time. If the polls opening and closing times were entered in the election coding process, an attempt to open polls before the official opening time will cause the printing of an appropriate diagnostic message.

3.3.2 While the polls are open, the precinct workers will perform the following tasks, and the following activities will occur:

1. During the day, at least every hour, inspect each booth to ensure that there are no electioneering materials present and that the booth is otherwise suitable for voting ballots. As far as possible, defacement conditions shall be corrected.
2. Offer to instruct each voter in the proper method of voting by darkening the oval, casting write-in votes and using the secrecy sleeve. Offer each voter further instruction and practice time, if necessary.
3. Instructions in inserting voted ballots into the ES&S 100, if necessary, shall be given at the time of stub removal.
4. A write-in space is provided for each office on the ballot. The voter must both write the name of the candidate and completely fill in the voting position oval.
5. The process for surrendering absentee ballots at the polling place must be followed .No person to whom an absent voter ballot was issued is permitted to vote at the polling place unless he or she surrenders the ballot. The ballot is to be marked "SURRENDERED" and placed in the container marked for "ABSENTEE BALLOTS SURRENDERED AT THE POLLING PLACE". The voter is then permitted to vote at the precinct polling place. Any person to whom an absent voter ballot was issued may vote a precinct ballot provisionally without surrendering the original ballot. This is accomplished by providing the precinct board workers with a signed statement, under penalty of perjury, that the voter has not voted and will not vote any other ballot in that election.
6. The process for leaving voted absentee ballot at the polling place is as follows. If a voter returns a voted absentee ballot, the precinct workers verify that the ballot is sealed and that the signature of the voter is on the Return Identification Envelope. They will additionally require any person who returns a voted, sealed absentee ballot to sign a log or record before depositing his or her voted and sealed absentee ballot in the specially marked container.
7. Do not store surrendered absentee ballots; returned, voted sealed absentee ballots; spoiled ballots; or voted provisional ballots in the auxiliary or emergency voting bin of the ES&S 100. Rather, these ballots should be stored in their appropriately designated containers unless the jurisdiction has adopted procedure to ensure a secure process.
8. The voter, upon leaving the voting booth shall place his/her voted ballot in the secrecy sleeve with stub exposed and proceed to the ES&S 100. There, a precinct officer shall remove the stub and hand it to the voter. The voter shall retain possession of the ballot and be directed to the ES&S 100 where he or she shall put the ballot into the throat of the device. The secrecy sleeve may continue to be employed during this process to hide the

voted portion from view, but care should be taken not to attempt to introduce the sleeve into the throat of the ES&S 100. The voter shall return the empty secrecy sleeve as well as the uncapped marking instrument to a designated precinct official who may make it available for re-use. The provisions of this paragraph shall be considered mandatory when ballots are printed on both sides and optional when ballots are printed on one side. In the latter situation secrecy can be assured by advising voters to carry voted ballots face down after voting. Ballots may be processed through the ES&S 100 face down.

9. A precinct official shall be available near the ES&S 100 for assistance. This official may be on the board of either precinct if multiple precincts are being processed in a single polling place. The same official need not perform these duties throughout the day; and these duties may be rotated among the multiple precincts.
10. If a precinct worker assists a voter, at the voter's request, in how to insert his or her ballot into the ES&S 100, an Assisted Voter affidavit need not be completed, unless the assistance requires the viewing of the voting portions of the ballot.
11. Read and inform the voter of the text of messages displayed by LCD, if necessary.
12. The precinct workers will inform the voter of what corrective action, if any, may or must be taken should a ballot error or ballot anomaly condition be encountered. When assisting the voter as described above, the precinct officer shall position himself or herself so that the voted portion of the ballot shall not be in that officer's view.
13. During the time when Polls are open, the Zero Results tape can be removed from the ES&S 100's printer compartment, but shall be kept in a secure location at the polling place if the tape is removed from the unit the polling place will produce a minimum of 2 copies which shall be programmed within the ballot coding. One copy for public view and one copy as an official record of the election.
14. If for any reason the ES&S 100 becomes inoperative, voting shall continue. From the time the device becomes inoperative, until it is repaired, tested and again made available for ballot tabulation; voted ballots shall be placed in the forward emergency or auxiliary bin which shall be opened for that purpose. If such an event occurs the election official shall follow the California Election Code for processing. If, and when, the ES&S 100 is restored to operation, ballots which have been stored temporarily in the Emergency or Auxiliary Bin shall be entered into the ES&S 100 by a Precinct Board member, witnessed by a second Board member and must be fully noted in the delay event log. This process shall not hinder nor delay voting, and shall be performed during inactive voting periods, or after the last voter has voted and before the "Print Totals" key is pressed. During this process, if a damaged ballot is encountered, it shall be placed in an envelope or container appropriately labeled. Such ballots shall be held for duplication by the election official for inclusion in the Official Canvass and be subjected to the 1% recount as deemed appropriate by the election official in accordance with the California Election Code.

3.3.3 Closing The Polls

The following procedures and activities must be conducted in public view.

1. Promptly at 8 p.m. declare, "The polls are closed." Any voter in line at the closing must be allowed to vote, but no one who arrives after 8 p.m. may vote.
2. All unused official ballots are boxed, noted and sealed into a container meant for this purpose.

3. Place all surrendered Absentee Ballots in the container provided for that purpose. Place any voted Provisional Ballots in the container provided for that purpose. Set the containers aside for return with the rest of the election supplies.
4. Open the ES&S 100 printer compartment and unroll the Zero Results Tape if saved within the unit. Respond to the "PRINT TOTALS" message by depressing the "YES" button on the face of the ES&S 100. Respond to the confirmation message with another depression of the "YES" button. The Precinct Results Tape will now begin to print. The Precinct Results Tape prints ballot statistics and a listing of each office and measure, within which are the tabulated counts of votes for each candidate and each measure (for/against). Said copy of the tape may be posted in a location chosen by the election official.

AT THIS POINT, A BALLOT ACCOUNTING OPTION IS AVAILABLE.

5. Ballot accounting for the unofficial canvass may be by reference to statistics printed on the Precinct Results Tape. In such case, a physical counting of ballots in certain randomly selected ballot boxes may be performed as an audit trail CHECKPOINT. This physical counting of ballots will be accomplished during the preparation of the official canvass.
6. Ballot counts for each precinct, and in an "Open Primary" Election, ballot counts for those ballots containing a partisan office, shall be copied from the Precinct Results Tape onto the Ballot Accounting Statement. Total ballots cast are also available from the public counter.
7. If the election official directs that the procedures described in paragraphs 4. and 5. above be followed, it will not be necessary to physically count the ballots. Ballots containing write-in votes will have been separated into the left bin and there will be no need to go through all the ballots searching for write-ins as they will, at the choice of the county, be processed at election central.
8. Two precinct workers will sign the certification message at the end of the Precinct Results Tape. The continuous Precinct Results Tape and The Zero Results Tape shall be torn off at this point, and placed in a container designated for this purpose. A second log/results tape shall be printed by again pressing the Print Totals "YES" key. This second tape shall be torn off and included in the envelope used to mail the Certificate of Packaging and Sealing to the election official.
9. Turn off and unplug the ES&S 100, and break the seal on the Memory Card compartment, place the Memory Card in the container provided for that purpose or by choice of the county, place the unit into a secure bag without removing the memory card thus leaving the seal intact for removal at election central.
    - Remove the Memory Card, and with one copy of the continuous Zero and Precinct Totals Tape, place it in the anti-static bag. This anti-static bag will be delivered to either a collection point or to the central processing facility.
    - Remove the unit from the ballot box, place the unit into the equipment transfer bag with the seal remaining intact, and delivery the unit with other election material to election central for processing.
10. After unlocking the ballot box compartment doors, remove the voted ballots from the ballot box taking care to place those left bin ballots which contain write-in votes, if the diverter is used, on top of the normal right bin voted ballots. Note that if multiple precinct processing in a single polling place occurs, the voted ballots must be separated into unique precinct groupings
11. Insure that all ballot box compartments are empty.

12. Complete the Ballot Statement indicating: the total number of official ballots received from the election official; the number of spoiled ballots; the number of unused ballots; the number of provisional ballots; and the number of ballot cast at the precinct. The sum of the spoiled ballots, unused ballots, provisional ballots, and ballots cast at the precinct should equal the number of official ballots received from the election official. Explain any discrepancy in writing on the ballot statement itself.
13. Reconcile the number of ballots voted in the precinct to the number of signatures in the Roster-Index. Again, explain any discrepancy in writing on the ballot statement.
14. Complete the "Certificate to Roster" showing: the name(s) of person(s) who, after signing the Roster, fail(ed) to vote because of challenge, or other reason; plus the number of people who voted in the precinct; and complete the certification attesting to the accuracy of the Ballot Statement. The Ballot Statement must contain the signatures of all the polling place workers.
15. A designated polling place worker will enter the number of Absentee Ballots Surrendered at the Polling Place in the appropriate space on the Certificate of Packaging and Sealing. Then enter the number of provisional ballots in the appropriate space on the Certificate of Packaging and Sealing.
16. Place all unused, non-voted ballots in a container designated for this purpose and seal the container. It will be returned with the election supplies.
17. Place all voted ballots in a container designated for this purpose and seal the container. Enter the total in the proper box on the Certificate(s) of Packaging and Sealing and elsewhere as directed. This total should agree with the number of ballots cast at the precinct reported on the Ballot Statement.
18. Count the number of special, non-ES&S 100 ballots, if any, that were left at the polling place. These ballots were cast in accordance with Elections Code Sections 13317 and 13265. Seal and return these ballots as directed by the election official.
19. The following methodology will be used in packaging various election supply items for return to the election official. All ballots cast, unused ballots, surrendered absentee ballots and provisional ballots will be sealed in their designated respective containers. The Roster-Index, Precinct Index and Purged Voter Index will be sealed in accordance with the directions of the election official. All other supplies will be packed or sealed as directed.
20. Dismantle and stack the voting booths.
21. Review the Certificate of Packaging and Sealing one last time. Verify that the numbers of ballots cast, absentee ballots, and provisional ballots have been correctly entered on the Certificate of Packaging and Sealing. Verify that the required materials have been placed into the appropriate container or containers, listing the materials inserted in each container and indicating that the container or containers were appropriately sealed. After all entries have been completed, each member of the board shall sign the Certificate. After the poll closing procedure is completed, the original Certificate shall be mailed to the election official by a member of the precinct board other than the members who return the election supplies. A self-addressed stamped envelope shall have been provided for this specific purpose. The copy shall accompany the ballot container to the election supply collection point. At least two precinct board members must accompany all ballots and election supplies until they are in the custody of the election official and a properly issued receipt for these items has been provided.
22. Memory Cards and Units will be returned in accordance with direction of the election official.

DO NOT RELEASE BALLOTS OR ELECTION SUPPLIES TO THE CUSTODY OF ANY OTHER PERSON WITHOUT FIRST OBTAINING A RECEIPT.

3.4 SEMI OFFICIAL CANVASS OR UNOFFICIAL ELECTIONS RESULTS PROCEDURES

3.4.1 Report Preliminary Absent Voter Tally Results

Preliminary absentee ballot tallies, compiled pursuant to Elections Code section15000, will be reported to the Secretary of State immediately following the close of the polls. This requirement shall apply to all elections for which election results are reported to the Secretary of State. These results will be compiled from the central processing of absentee ballots on specialized high speed, optical scanners designed for this purpose. This equipment and its attendant procedures are not a subject for this document please reference California approved procedures for model 650, 550, 150 central ballot tabulation systems.

3.4.2 Appointment of Boards

The election official responsible for the conduct of an election shall appoint boards to carry out the following semi-official canvass functions:

1. Absent Voter and Provisional Voter Ballot Processing
2. Logic and Accuracy Testing
3. Seal and Container Inspection
4. Ballot Inspection
5. Ballot Processing
6. Ballot Duplication
7. Write-In Ballot Processing
8. Ballot Storage
9. Memory Card Control
10. Elections Observer Panel
11. Other boards deemed necessary by the responsible election official.

Individuals appointed may perform more than one function or serve on more than one board. The semi-official canvass functions listed above must be performed by a minimum of two persons. Each board member shall be appointed to perform the function designated. Each person who handles ballots at the central or remote counting location shall sign the following declaration:

"To the best of my knowledge and belief, I did not tamper with any ballot, Memory Card, or ballot counting equipment, nor did I observe any other person in any way tamper or interfere with the ballot counting process. And to the best of my knowledge the said process was done in accordance with both State and Federal law and in compliance with the California Election Code."

3.4.3 Establish Election Audit Trail CHECKPOINTS

The responsible election official shall establish procedures to account for all voted ballots during the semi-official canvass. These procedures shall record the time voted ballots and Memory Cards and units were received from each precinct and shall indicate from whom they were received and to whom they were submitted. In addition, each function listed under Section 4.6.2 (above) is designated as an Audit Trail CHECKPOINT, and the responsible election official must document the receipt and processing of voted ballots and Memory Cards by the various boards assigned to perform these functions.

3.4.4 Absentee and Provisional Ballot Processing

All surrendered and/or returned voted absentee ballots and provisional ballots will be processed in compliance with approved administrative or Election Code procedures. Prior to any processing, the appropriate board must insure that all absentee and provisional ballots received from the precinct(s) were properly sealed in their respective containers. The inspection and documenting of this reception process is an Election Audit Trail CHECKPOINT. Any defects or discrepancies noted during this process should immediately be brought to the attention of the election official. All provisional ballots will be verified closely to ensure that votes are only processed for eligible races.

3.4.5 Ballot Duplication

There is no need to remake ballots that have been processed by ES&S 100s at the polling place. All ballots deemed non-processable for whatever reason **must** be remade. A non-processable ballot must be duplicated and its original kept on file as an Election Audit Trail CHECKPOINT. Voter intent shall be determined only by the election official in accordance with the California Election Code.

3.4.6 Write-in Vote Processing

If ballots containing write-in votes are diverted into a specific ES&S 100 ballot box compartment (usually the left bin), the Write-in Ballot Processing Board, shall prepare the ballots for manual tabulation in the following manner. This procedure can occur during the Official Canvass period, and does not need to be completed on Election Night.

3.4.6.1 In those rare uncounted absentee or provisional ballot cases where a write-in vote has been cast without the corresponding write-in oval being darkened, the number of candidates to be elected for that office must be checked. Examine the voting positions on the ballot within the office where the write-in vote occurs. If any of the voting positions for that office are marked and the number of voting position marks plus the number of write-in votes exceeds the number of candidates to be elected, an overvote exists. In this instance, none of the votes for that office may be counted and the ballot must be sent to the election official to determine voter intent. The ballot must be duplicated prior to processing, with the office containing the overvote and write-in left blank. If so determined by the election official, invalidate all votes for the overvoted office by writing "VOID" across the write-in name(s) on the original ballot.

3.4.6.2 Refer to the list of qualified write-in candidates provided by the election official, and if the name written in is not on the list, write "VOID" across the name and place the ballot in the container with its precinct's ballots. If the name is on the list but the write-in is not made in the space(s) provided for the office in which the candidate is qualified as a write-in candidate, write "VOID" across the name and place the ballot in the designated container with its precinct's ballots. If the write-in vote is for a qualified candidate in the precinct, place the write-in ballot in the container designated for valid write-in votes, if such votes are to be tallied by a separate board. If the board examining the ballots with write-ins is assigned to tally them, they shall do so, using the result sheets and other control documents provided by the Election Official. This is an Election Audit Trail CHECKPOINT.

3.4.7 Ballot Processing Board (Memory Card Processing)

When ES&S 100's are used in the polling places, the Ballot Processing Board has the function of uploading precinct Memory Card totals to the Summary System. Memory Card upload processing shall be done in the presence of at least two people, one of whom will be the summary system manager. A record or log of the sequence in which the precincts' Memory Cards were processed along with a recording of system irregularities in processing will be printed on the ES&S 100 that is uploading Memory Card precinct totals in its Memory Card reading mode.

3.5 SUMMARY SYSTEM PROCESSING

3.5.1 The Summary System operator(s) will receive the Memory Cards, properly identified and logged-in, from the Memory Card Control Board. Upon receipt of the Memory Card, the Summary System operator shall: cause the Memory Card data to be read or uploaded into the Summary System. Upon completion of reading, the Memory Card will be returned to the Memory Card Control Board. From the Memory Card uploads, the Summary System operator will produce jurisdiction wide election results bulletins as required.

3.5.2 All Summary System activity is logged. At specified periods throughout the process, the Summary System is backed up to diskette or tape. The election official shall report election results, as specified, to the Secretary of State for statewide elections and for specified special elections.

3.5.3 The voted ballots shall be treated in the following manner beginning with their return to the election facility. A Ballot Storage Board shall receive and secure all voted tabulated ballots delivered from the precincts. The voted ballots must be maintained in a locked and sealed room or containers any time the ballots are unattended. Any authorized entry into ballot containers must be accompanied by a record or log noting time, place, persons involved, and reasons for breaking the seal. The jurisdiction should always be aware of the security requirement in the storage of election equipment and ballots.

3.5.4 At each precinct wherein ES&S 100s were installed, the Memory Card and units for that precinct shall be logged in, and a receipt for same issued. At a minimum this precinct log shall carry a precinct ID, The date and time Memory Cards and units are received and the initials of the appropriate Memory Card Control Board member. Properly received Memory Cards will be delivered to the Summary System operator for upload. Upon completion of uploading, the Memory Cards will be returned to the Memory Card Board were the units will remain in secured storage. It is the duty of the Memory Card Control Board to exercise strict supervision over the identification, receipt, issue, movement and storage of Memory Cards. All such activity is to be logged or otherwise documented. Memory Cards are an intermediate storage medium used for the transfer of precinct(s) election results from ES&S 100s to the Summary Systems. In as much as the ballots themselves are a permanent record of a cast ballot that can be manually recounted, sufficient for the long term retention of election data, and inasmuch as the printed Precinct Results Tapes (Zero and Precinct Totals) are available for comparison against Summary System reports, and inasmuch as Memory Cards may be needed for subsequent elections which may occur prior to the expiration of a mandated period for retention of election materials, the requirements of Election Code sections 17301 through 17306 shall be deemed not applicable to Memory Cards. Such election data can be stored on a CD or other memory device that shall not reside on a network and be subject to all security requirements sited within the California Election Code.

3.5.6 Post Official Canvass Period Disposition of Election Materials

Following certification of the election results and upon expiration of the period for recount requests, the ballots may be moved to secure storage for the required ballot retention period, during which time, the ballot containers remain sealed. The election official shall not open any ballot containers or permit any ballot containers to be opened except as permitted in Elections Code sections 15305 and 15306, or in the event of a mandated recount. Seals used for the foregoing purposes shall be numbered, destructible seals.

3.5.7 Certification by Unescorted Personnel.

All unescorted persons present within the security area, including visitors, media representatives, and standby personnel, shall be clearly identified by a badge or other means and a log of their arrival and departure times. All unescorted personnel shall be subject to restrictions established by the responsible election official to ensure the efficiency and integrity of the vote tallying process.

4 OFFICIAL CANVASS AND POST-ELECTION PROCEDURES

4.1 PURPOSE OF THE OFFICIAL CANVASS

The Official Canvass consists of a post-election audit of all of the voting precincts' returns and the absent voter ballot returns. Its purpose is to validate the outcome of the election by verifying that there were not more ballots cast than the sum of the numbers of voters who signed the Precinct Roster/Index and who applied for, and were issued absent voter ballots, as well as to account for all official ballots produced for the election. Additionally, the Official Canvass verifies that all required certificates and oaths were properly executed by the precinct board. Verification of the computer or ES&S 100 count is accomplished by manually recounting the voted ballots from at least one percent of the voting precincts and comparing the manually tallied results to the ES&S 100 and Summary System produced results. Each of the following Official Canvass functions must be performed by a minimum of three persons.

4.2 CANVASSING PRECINCT RETURNS

Canvassing Precinct Returns consists of processing the provisional ballots returned from each precinct; verifying the eligibility of persons who cast ballots provisionally; opening the envelopes of eligible voters and removing the provisional ballots; examining the ballots for write-in votes; noting cause for rejection and damage identifying original or duplicate provisional ballots by precinct and delivering same to the designated official responsible for updating the ES&S 100 and/or computer tallies; writing the reason for rejection on the envelopes of ineligible provisional voters (these unopened envelopes are to be retained for the period prescribed by law), and processing the Statement of Votes in the manner prescribed for Ballot Inspection Boards in Sections 3 and 4.

The Ballot Statement prepared by each precinct board is examined. The number of official ballots reported "received" by each precinct is compared to the number issued by the election official, and any discrepancy is explained or resolved. The number of ballots voted (including those voted provisionally), plus spoiled and unused ballots, should equal the number of ballots delivered to the precinct. Any discrepancy is resolved or explained.

The number of signatures in the Roster-Index is compared to the number of ballots cast and reported on the Ballot Statement. Any difference between the two is resolved. Complete the duplication and reprocessing of any ballots not counted on election night because of damage, invalid identification markings, or other reasons. Election supplies and equipment, including

unused and spoiled ballots, ballot containers, etc., are searched for ballots not accounted for. Any ballots found are processed.

4.3 CANVASSING WRITE-IN VOTES

Examine the ballots with write-ins that were processed by Ballot Inspection Boards, separate Write-in Processing Boards, Absent Voter Ballot Processing Boards or Canvassing Boards to verify that the names written in are for valid candidates. Review the tallies of valid write-in votes by precinct or absent voter ballot style, and summarize by jurisdiction. Prepare "Statement of Write-in Votes" for inclusion in the official "Certified Statement of Election Results".

4.4 AUTOMATIC MANUAL RECOUNT IN 1%OF THE PRECINCTS

For the purpose of validating the accuracy of the computer count, a public, manual recount of the ballots cast in at least one percent of the precincts shall be conducted within fifteen days after every election in which the ES&S 100 system is used. This one percent precinct sample shall be chosen at random (except as described in Section 5.5.2, below), If the random selection of precincts results in an office or ballot measure not being manually recounted, as many additional precincts as necessary shall be selected and manually recounted so as to include all candidates or ballot measure not recounted in the original sample.

4.4.1 Precincts selected at random pursuant to Elections Code section 15645 shall be chosen by an individual who is designated by the responsible election official and who is not the same person, or a relative of the person responsible for election coding. Selected precinct numbers shall not be revealed to such personnel until the semi-official count is complete.

4.4.2 In the event an ES&S 100 fails after the semi-official or official ballot tally process has begun, the ballots from the last precinct tallied on the equipment prior to the failure shall be included in the automatic manual recount. If a discrepancy is discovered between the automated tally and the manual recount tally, each precinct's ballots which had been read and processed by the failed equipment, subsequent to the time the equipment last successfully completed logic and accuracy test, shall be tallied again.

4.4.3 The guidelines set forth in Section 6.5 concerning the interpretation and counting of valid voting position marks, shall be followed during the automatic recount of ballots.

4.5 UPDATE COMPUTER COUNTS

Computer vote counts are updated as often as is deemed necessary by the election official. During the Official Canvass, previously uncounted validly voted ballots must be counted in compliance with provisions of this Section 5. ES&S 100s and their attendant Memory Cards, ES&S 100's functioning in the Memory Card upload mode and Summary Systems may be used again. When the provisional ballots, add-on ballots from election night, those found during the canvass, and add-on absentee ballots have been verified, the ballots are ready for processing. Process ballots, by precinct, or ballot style, through the ES&S 100 and the Summary System ballot counting program. Compare the new computer counts to Ballot Statements. Resolve or explain any remaining discrepancies. Updated ES&S 100 Precinct Result Tapes are printed and stored with the original Zero and Precinct Result Tapes produced Election Night. If the original computer count for any precinct is found to be incorrect, or if there are precincts in which unresolved discrepancies remain, the ballots from such precincts shall be reprocessed through the ES&S 100 in their entirety. Compare the new counts to Ballot Statements. Resolve or explain any

remaining discrepancies. Upon completion of the update session, rerun Logic and Accuracy Tests and confirm results.

4.6 CHECKING UNUSED BALLOTS

Unused ballots will be processed in accordance with Elections Code section 14403 or 14404

Precinct officers will seal or deface unused precinct ballots, and election personnel in the office of the election official will seal or deface unused absentee ballots. The election official may inspect and count unused ballots as necessary to reconcile the ballot count during the official canvass.

4.7 RETENTION OF ELECTION MATERIALS

Upon the certification of the election results, Elections Code sections 17300 through 17306 and 15307 apply to the handling, security and disposition of unused ballots and other election materials. As noted in various sections of this document, Memory Cards are not deemed to fall within the purview of these Election Code sections. The retention period for ballots and related election materials is six months for all elections if no federal elections are involved. The federal election retention period is twenty-two months. Retention periods may be extended in the event of a court challenge.

4.8 ADHERENCE TO ESTABLISHED PROCEDURES

All operations associated with the official canvass and post-election procedures shall be performed in accordance with the applicable control and security provisions of Sections 2, 3, and 4. No operation or activity which results in a revision to voting data produced by the semi-official canvass shall be performed without the presence of a properly constituted Election Observer Panel, Logic and Accuracy Board, or an equivalent administrative and technical control body authorized to verify the correctness of the operations and responsible for maintaining accurate and complete audit records.

5 MANUAL RECOUNT PROCEDURES

5.1 REQUEST FOR AND PROCEDURES GOVERNING A MANUAL RECOUNT

A request for a recount and the conduct of the recount shall be made in accordance with Elections Code section 15600. The following additional personnel and procedures will govern the recount. Each candidate, and each side in the case of a ballot measure, shall be allowed not more than two observers for each recount board. Observers may not interfere in the recount process, may not direct questions to any member of the recount board, and may not touch or handle the ballots. All questions must be directed to the election official in charge of the recount. Prior to the beginning of the recount, all parties will be notified of the hours of operation. At least two people will attend ballots at all times during the recount, including breaks and lunch periods. Recount boards will be permitted break periods in the morning and afternoon, in addition to a lunch break. They will not stop for a break or for lunch while recounting a precinct. A manual recount of an optical scan voting system is straight forward in that the names of all contests, candidates and issues appear on the ballot face. The votes/marks on the ballot are a secret, permanent record of the election and become part of the Election Audit Trail CHECKPOINT of the voting system. The ballots are manually tallied for the office(s) to be recounted and these results are compared to the ES&S 100 generated Precincts Results Tape for that precinct. Should the totals not agree, then the ballots are reviewed for any ballot marking anomaly that would cause the ovals on a particular ballot to not be scanned. Once these differences are resolved, the next precinct is manually tallied. This process continues until all precincts have been tallied manually.

5.2 OVAL MARKINGS

5.2.1 Invalid Marks

Marks partially outside or that fill less than 10% of the oval probably were not scanned, and therefore were not counted as votes. Marks made with red or green pens are not read by the ES&S 100 scanner and therefore were not counted as votes. If it is clear that the elector intended to vote for a specific candidate then these votes must be tallied as a part of the manual recount such determination shall always be referred to the California Election Code when processing. These are the ballots that must be examined if the manual tally and the ES&S 100 produced total for a candidate do not agree.

5.3 OVERVOTE

A ballot condition which arises when the voter darkens more candidate ovals than the number of candidates to be elected. In an office to which one candidate can be nominated or elected, a second vote for any other candidate or write in position oval within that office creates an overvoted condition. The result is that no vote for any candidate in that office can be tallied, since the voter's intent is unknown. In the case of ballot measures, a "Yes" vote and a "No" vote for the same measure creates the overvoted condition. No vote shall be counted for any candidate or ballot measure when an overvote occurs. The number of overvotes shall be recorded for each office or ballot measure.

5.4 UNDERVOTES

An undervote is a ballot condition which arises when a voter darkens the ovals for fewer candidates than the number to be elected for that office, or when the voter does not darken either a For or Against oval in a ballot measure. Tallying the number of undervotes in a manual recount will add significant time to the manual recount process. The undervotes should be tallied only as part of the machine tally process. Voter intent shall fall to the Election Official as outlined in the California Election Code.

5.5 BLANK OR UNVOTED BALLOTS

A blank or unvoted ballot condition arises when a voter does not darken an oval for any candidate in any office or measure on the ballot. Tallying the number of blank votes in a manual recount will add significant time to the manual recount process. Blank votes should be tallied only as part of the machine tally process.

6 ELECTION SECURITY PROVISIONS

6.1 BALLOT COUNTING SYSTEM SECURITY

The election official shall ensure the protection of the election tally process from intentional manipulation, fraudulent manipulation, fraudulent and intentional manipulation, malicious mischief, accidents, and errors. Within one year following the adoption of these procedures, each jurisdiction should implement the following procedures to ensure security protocol is followed.

6.1.1 Establish procedures to identify changes to the ballot tallying system, including dates and times that files are created, modified, or accessed, and by whom. These procedures should also include a check list and sign-off requirement for the system proofing tasks outlined in Section 2.

6.1.2 Establish procedures for the physical protection of the facilities, as well as communication and data access controls. These should include intrusion and fire alarms, temperature and humidity sensors, etc. The procedures should also include provisions for locked facilities for computers which are directly dedicated to elections as well as for voted and non-voted ballots and counted and uncounted ballots. Such procedures shall not preclude the accessibility of ES&S 100s nor computers for purposes of testing, repair, demonstration, training and for other purposes which are deemed justifiable by the election official.

6.1.3 Establish contingency plans for ballot counting, including either backup ballot counting facilities under the election official's supervision, or the availability of such facilities from another jurisdiction, or from a vendor, or from another source. Such plans may take note of the existence of multiple ES&S 100s, and/or multiple components of the Summary System, if such is the case, citing these situations as adequate backup. In addition to the ballot counting program sent to the Secretary of State pursuant to Elections Code section 17500, each election official shall store another copy of the ballot counting program in an off site secure-but-readily-accessible location.

6.1.4 Establish procedures for internal security, i.e., the protection of ballot counting hardware, firmware, and software from fraudulent manipulation by persons within the elections office. These procedures must provide for: restricted access to ballot counting hardware, firmware, and software; individual passwords which must be complex and frequently changed; and physical protection of all non-voted precinct and absentee voter ballots, as well as all tallied and non-tallied ballots, by

use of logs to chronicle their quantity, use, and access before and after the election. A complete copy of each election official's security procedures shall be submitted to the Secretary of State for review and approval by February 1 of each even-numbered year beginning upon installation. In lieu of the biannual submission of this plan, the election official may affirm that no change has been made to previously approved procedures, or may submit updates to the procedures on a continuing basis. If no such plan has been formulated prior to February 1, it shall be submitted when completed.

6.2 ELECTION AUDIT TRAIL CHECKPOINTS

All ballot counting operations including mandated pre- and post-election testing, must be documented in sequential order. An automated and/or manual record or log must be maintained to record the time and date of "system events" related to ballot counting. "System events" in the ballot counting process include: initiation of the ballot count program; clearing totals; running logic and accuracy tests; any hardware failures; any repaired hardware (including running accuracy tests after repairs) any system crashes and restarts; any communications between multiple systems; any lost communication to remote sites; and times any lost communication is restarted. This log or record shall be continued until final certification of results, shall be retained for the same time period as ballots for that election, and shall be subject to the same physical security and integrity measures. Specific Election Audit Trail CHECKPOINTS shall, where applicable, include the following items.

6.2.1 All exception handling/error messages during ballot tallying, including any messages generated by the Summary System's error routines shall be date/time stamped and logged.

6.2.2 System messages, such as: diagnostic and status messages upon start up of ballot tallying; "zero totals" check; and, initialization or termination of processing by the ES&S 100s shall also be date/time stamped and logged.

6.2.3 All operator interaction with the system shall be date/time stamped and logged.

6.2.4 All ballot-related processing and handling exceptions, i.e., ballots not machine-readable, ballots requiring special handling, aborted or deleted precincts, etc. shall be date/time stamped and logged.

6.2.5 Copies of required tests shall be securely maintained.

6.3 STATISTICAL BALLOT DATA REQUIRED

The following items are critical to tracking, auditing and reporting the ballot counting process and must be maintained.

6.3.1 For the election definition phase, diagnostic proof listings of candidates and active vote positions for each ballot style, ballot type or precinct must be maintained.

6.3.2 The number of ballots read within each precinct, by type, including totals for each party in primary elections must be maintained.

6.3.3 The total number of ballots processed must be maintained.

6.3.4 Separate accumulations and reporting of the quantity of overvotes, undervotes, and write-ins within each precinct for each race or issue must be maintained. This is generally done on reports other than the report distributed Election Night.

6.3.5 Availability of the above information in summary and by precinct.

7 CERTIFICATION AND REPORTING REQUIREMENTS

7.1 BIENNIAL CERTIFICATION OF HARDWARE

Elections Code section 19220 requires each election official to inspect and certify the accuracy of their voting or vote tabulating equipment at least once every two years. The election official shall certify the results of their inspection to the Secretary of State. A copy of a sample certificate is attached to these procedures as Appendix A.

7.2 HARDWARE CERTIFICATION AND NOTIFICATION.

7.2.1 Certification

All ballot readers and specialized vote tabulating equipment must be certified prior to use in any election by the Secretary of State. Certification procedures are available upon request from the Secretary of State's Elections Division. All firmware and software used as part of the system is subject to the notification of change requirement also.

7.2.2 Notification

For each statewide election, the responsible county election official shall cause to be prepared a list, including quantities, of all equipment to be used to tabulate votes during the semi-official and official canvass.

7.2.3 Seven days before each statewide election, the election official shall certify to the Secretary of State the results of the logic and accurate tests as well as the functionality of all ballot counting equipment. This certification shall also affirm the use of the same equipment for pre-election testing and for semi-official and official vote canvasses. In the event of a change to the ballot tally program occurring after this certification, an amended certificate shall be submitted no later than the day before the election.

7.2.4 In the event any equipment is repaired, altered or replaced following the certification specified in Section 7.2.3, and prior to completion of the official canvass of the vote, an amended certification of logic and accuracy testing and a revised list of equipment used must be submitted to the Secretary of State. This submission shall occur not later than submission of official canvass results. The jurisdiction will have an inventory of all voting equipment available for review by the Secretary of State at all times.

7.3 ELECTION OBSERVER PANEL

All procedures prescribed herein shall be carried out in full view of the public insofar as feasible. In addition, the responsible election official shall devise a plan whereby all critical procedures of the vote tallying process are open to observation by an Election Observer Panel. Representatives of the qualified political parties and representatives of the news media may be among those invited to serve on this panel and shall be given the opportunity to observe that the correct procedures are followed in the receiving, processing, and tallying of all voted ballots.

7.4 LOGIC AND ACCURACY CERTIFICATION

A Logic and Accuracy Board shall be appointed by the responsible election official and insofar as is practicable, shall be comprised of the same persons prior to, during, and after the election. The Board shall have the following duties:

7.4.1 Receive from the election official all required test materials and take steps to ensure the security of said materials prior to, during, and after the election, except when the materials are properly in the possession of one of the other boards or election officials as required by these procedures.

7.4.2 Verify the correctness of the logic and accuracy of test Memory Cards and the logic and accuracy of test ballots. This verification shall also be required for any material which must be replaced.

7.4.3 Observe the performance and verify results of all required tests.

7.4.4 Note any discrepancies and problems and affirm their resolution or correction.

7.4.5 Deliver into the custody of the election official all required test materials and printed output.

7.4.6 Certify to the performance of each of the above-prescribed duties as well as those otherwise established by the procedures; provided that all members of the Board shall sign the appropriate certificate or certificates. Final pre-election certification shall be made to the Secretary of State no less than seven days before each statewide election. This certification shall be made by the responsible election official based on the Logic and Accuracy Board's certification of successful testing. In the event an amendment to the ballot counting program is required following this certification, the election official must immediately recertify to the Secretary of State.

7.5 SUBMIT BALLOT TALLY PROGRAMS TO THE SECRETARY OF STATE.

Ballot tabulation programs for statewide elections are to be delivered to the Secretary of State no later than seven days prior to each statewide election. Ballot tally programs must be accompanied by the election official's certification of testing, the list of vote counting equipment used and a notification that he has caused Memory Cards to be programmed in conformity with the ballot diverter options as set forth in Table 2 herein. Refer to Elections Code section 17500. Should changes be required following certification and submission to the Secretary of State, resubmission and re-certification is required.

7.6 ELECTION NIGHT AND POST ELECTION REPORTING

Any delays in election night's semi-official canvass reporting due to hardware, software, environmental, or human causes which result in failure to report results to the Secretary of State at least every two hours shall be reported to the Secretary of State by the 28th day following the election. The responsible election official may also report other delays in the processing of ballots as he or she deems appropriate.

7.7 PREPARATION OF SPECIFIC WRITTEN PROCEDURES

Each election official shall prepare specific written procedures for each phase, step and procedure in the preparation, operation of polling places, vote counting and official canvasses of elections. Written procedures must also include instructions to precinct officials regarding proper handling of absent voter and provisional voter ballots as well as a description of procedures used to manually recount ballots pursuant to Elections Code section 15645. These procedures must be prepared and submitted to the Elections Division of the Secretary of State's Office within two years following the adoption of these procedures by the Secretary of State. Upon submission, the elections jurisdiction's procedures shall be reviewed for compliance with state procedures, and the election official shall be advised of any necessary revisions.

APPENDIX A

Certification by Logic and Accuracy Board

We, the undersigned, having been appointed by the elections official in the county named below to verify the logic of the computer vote count program for the election indicated below, as required by the Procedures adopted pursuant to Elections Code section 19205, do hereby certify through the Elections Official to the Secretary of State:

THAT the pre-vote counting tests, as defined in the above mentioned procedures, have been performed;

THAT the pre-vote counting test results have been compared with the pre-determined correct totals for each office and ballot measure;

THAT the cause of any discrepancy was found and corrected; and,

THAT the logic test programs, test ballot cards, and test printed output which were certified as correct by the Logic Verification Board were delivered into the custody of Elections Official.

ELECTIONS OFFICIAL'S NAME AND TITLE

COUNTY	ELECTION DATE

VOTE COUNTING SYSTEM

PRINTED NAME OF FIRST BOARD MEMBER
SIGNATURE OF FIRST BOARD MEMBER AND DATE
PRINTED NAME OF SECOND BOARD MEMBER
SIGNATURE OF SECOND BOARD MEMBER AND DATE

APPENDIX B

Certificate of Biennial Inspection

I, the elections official named below, hereby certify that in the normal course of pre-election hardware maintenance and testing of our voting and vote tabulating equipment, for the election indicated below, that I have found the voting and vote tabulating equipment for the city/county named below to be operating correctly and accurately. This certificate is issued pursuant to Elections Code section 19220.

ELECTIONS OFFICIAL'S NAME AND TITLE

ELECTION DATE	COUNTY

SIGNATURE AND DATE

SEAL